

SIX FLAGS NEW ENGLAND	
SUBJECT: WALKING AND WORKING SURFACES	SAFETY REFERENCE MANUAL
SECTION: 35	
EFFECTIVE: January 2016	SUPERSEDES: ALL PREVIOUS
CFR #: 29 CFR 1910.21 – <i>Subpart D</i>	

35.1 INTRODUCTION

Due to the many different requirements in this section, only basic information will be provided. To set the groundwork, design requirements, practices during use and maintenance to ensure equipment integrity will be generally covered. Refer to OSHA standards and specific guidelines.

35.2 GUARDING FLOOR AND WALL OPENINGS

Every stairway opening shall be guarded on all sides except the opening to the stairs. If guarding is not feasible, a hinged floor opening cover can be used for infrequently used stairs. Stair covers shall be of standard strength and construction. Openings for materials to pass through shall be guarded. Any openings not guarded by rails shall be staffed when open. This includes temporary opening during construction or repairs. Openings blocked by machinery, or materials passing through shall have a protective cover that leaves no openings over 1-inch wide.

Where doors open directly onto stairways, a platform shall be provided. Effective width of stairs must remain 22 inches minimum. Wall openings shall be guarded when there is a drop of 4 feet or more.

When there is a danger of materials falling, a toe board is required.

If the wall opening is for material handling it must be railed. When not in use, if a door is installed, a guard is still required. Every chute wall opening with a drop of 4 feet or more must be guarded. Every window less than 3 feet from the floor, where a drop of 4 or more feet exists, must be guarded. Guards must withstand 200 lbs. applied horizontally.

Every temporary wall opening shall be guarded, including toe boards if necessary. Open-sided platforms, and runways shall be guarded if 4 feet or higher. If material or tool hazard exists, a toe board will be required in addition to railings.

Runways at least 18 inches wide can omit railings on one side as operations require.

Stair rails shall be 30 to 34 inches high. Platform rails shall be 42 inches high. All rails shall have a mid rail and if applicable a toe board.

Depending on materials used size requirements for railings; refer to the Risk Management Department prior to building any rails.

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35.3 FIXED INDUSTRIAL STAIRS

Fixed stairs shall be provided for access from one structure level to another where operations necessitate regular travel between levels and for access to operating platforms on any equipment requires attention routinely during operations.

Fixed stairways shall be designed and constructed to carry, a load five times the normal live load anticipated but never less than a 1,000 lb. load.

Fixed stairways shall have a minimum width of 22 inches. Fixed stairs shall be installed at angles to the horizontal of between 30 and 50 degrees.

All treads shall be reasonably slip resistant and the nosing shall be of non-slip finish.

Stairway platforms shall be no less than the width of a stairway and a minimum of 30 inches in length measured in the direction of travel. Standard railing shall be provided on the open sides of all exposed stairways and stair platforms.

Vertical clearance above any stair tread to an overhead obstruction shall be at least 7 feet measured from the edge of the tread.

35.4 RAILING DESIGNS

- A. A standard railing shall consist of top rail, intermediate rail and posts, and shall have a vertical height of 42" from upper surface of top rail to floor, platform, etc.
- B. A railing for open-sided floors, platforms, and runways shall have a toe board whenever, beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling materials could cause a hazard.
- C. Railings shall be of such construction that the complete structure shall be capable of withstanding a load of at least 200 lbs. in any direction on any point on the top rail.
- D. A stair railing shall be of construction similar to a standard railing, but the vertical height shall be not more than 34", or less than 30" from upper surface to top rail to surface of tread in line with the face of riser at forward edge of tread.